May 1, 1923. 1,453,939

F. R. KOENIG

ROLLER SCREEN

Filed Feb. 2, 1922

Fig. 1.

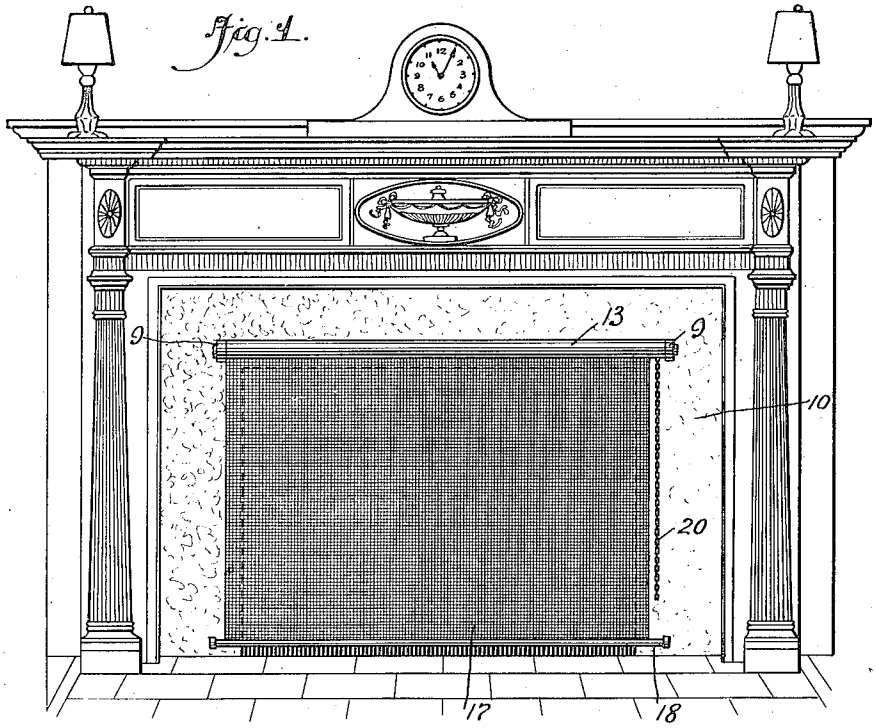


Fig. 2.

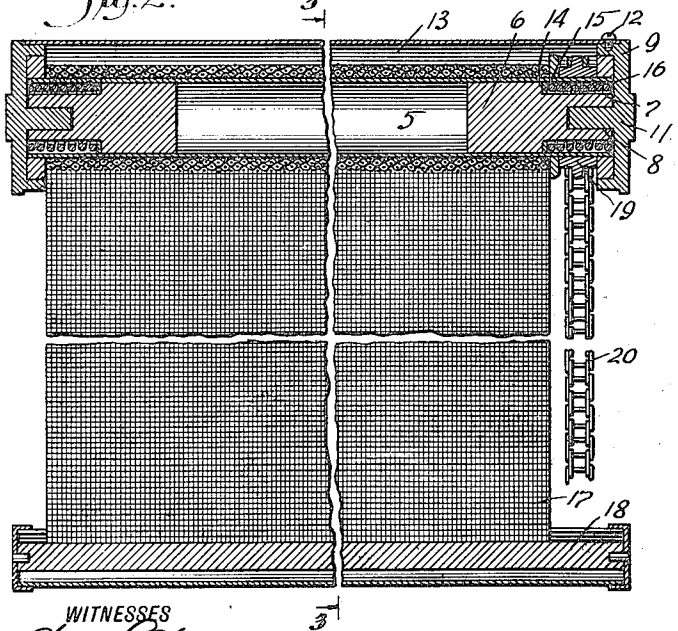
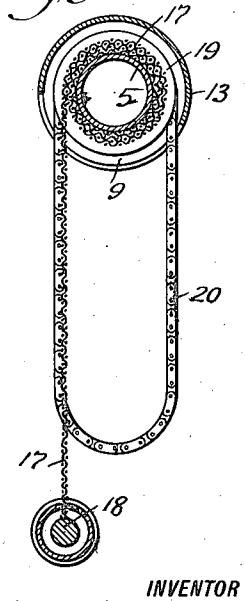


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

FRANK R. KOENIG, OF BROOKLYN, NEW YORK, ASSIGNOR TO W. H. JACKSON COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

ROLLER SCREEN.

Application filed February 2, 1922. Serial No. 533,697.

To all whom it may concern:

Be it known that I, FRANK R. KOENIG, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Roller Screen, of which the following is a full, clear, and exact description.

The present invention relates to new and useful improvements in screens, and it pertains more particularly to screens of the roller type.

It is one of the primary objects of the present invention to provide a screen of the roller type especially adapted for use as a protecting screen for fireplace openings.

It is a further object of the invention to provide a roller screen of this type which may be adjusted to various positions relative to the fire place opening.

It is a further object of the invention to provide a roller screen of this type which will maintain its adjusted position without sagging and without the aid of a positively locking means.

It is a still further object of the invention to provide means for rolling the screen to expose the entire opening of the fireplace.

With the above and other objects in view, reference is had to the accompanying drawings, in which—

Figure 1 is a view in elevation of a fireplace showing the screen covering the opening thereof;

Fig. 2 is a vertical sectional view of the screen;

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2.

Referring more particularly to the drawings, the device comprises a tubular member 5, within each end of which is mounted a plug or similar member 6. Each of these plugs 6 has a reduced end 7, which is recessed as indicated by the reference character 8. The plugs 6 are secured in their respective ends of the tubular member 5 by any desired means and in such a manner that the plugs are caused to rotate with the tubular member 5.

The reference character 9 designates end members of which there are two, and these end members are secured by brackets or other suitable means not forming a particular part of this invention, to the fireplace 10. Each of these end members 9 is provided with an inwardly-projecting portion 11 adapted to be received within the recess 8 of its respective plug 6 to form means by which the plugs 6 are rotatably supported in place. Secured to the end members 9 by means of screws or the like 12, is a guard member 13, which encloses the roller, which in turn consists of the tubular member 5 and the plug members 6.

The reduced end of each of the plug members 6 provides a shoulder 14, and slidable over the reduced end and engaging the shoulder 14, is a washer 15. Interposed between each of the washers 15 and its respective end member 9, is a coil spring 16, and said coil spring is placed under compression in order to exert a friction against its respective washer 15.

One end of the tubular member 5 is provided with a sprocket 19, and passing around said sprocket is a hand chain 20, by means of which the sprocket is driven to rotate the tubular member to wind the screen 17 thereon. The hand chain 20 extends downwardly from the tubular member 5 as shown in Fig. 1.

The device operates in the following manner:

When the screen is entirely rolled up, it is only necessary to grasp the lower member 18 and pull the same downwardly whereupon the screen will be unrolled from the tubular member 5. By pulling upon the screen the tension produced by the coil springs 16 is overcome, but as soon as the pull upon the screen is relieved, the friction created by these coil springs by means of the washers 15, prevents further rotation of the tubular member 5 and thus holds the screen in the desired position. When it is desired to again roll the screen upon the tubular member 5, it is only necessary to grasp the hand chain and pull the same, whereupon the sprocket 19 will be rotated, and, consequently, will rotate the tubular member to wind the screen thereon.

From the foregoing it is apparent that the present construction provides means whereby the screen may be retained in any of its adjusted positions by the tension or friction exerted by the coil springs, and while said friction is sufficient to maintain the screen in adjusted position, it still may be over-

come by the hand chain to wind the screen upon the tubular member or by a pulling on the screen to unwind the same therefrom.

What is claimed is:

A roller screen for fireplaces comprising a hollow roller, cap members fitted on the respective ends of said roller, each cap member having an inwardly-projected lug, a plug mounted in each end of said roller and having a recess receiving the lug of its respective cap, each plug member having a reduced portion on the outer end thereof, and a coil spring carried by each reduced portion and engaging the shoulder at the base thereof at one end and its respective cap at the other end to produce friction sufficient to hold the roller normally against movement, and means for rotating said roller against said friction.

FRANK R. KOENIG.